SAXONY.

Area and classification.

The State forests of the kingdom of Saxony extend over an area of 288,133 Saxon acres, 394,165 English acres (one Saxon acre = 1·368 English), of which only 11,414 acres

Yield.

are classed as not under timber. The average annual yield of the forests, from 1864 to 1868 inclusive, was 340,878 *klafters*, representing 1·23 *klafter* (98·5 cubic feet) per Saxon acre of the area actually under crop (*vide* remarks

Receipts and disbursements.

at page 70). This quantity realised 2,329,450 thalers, (say, 350,000*l*.). The average annual expenditure, during the same period, amounted to thalers 672,923 (say, 101,000*l*.) leaving a nett profit of thalers 1,656,533 (249,000*l*.) per annum, representing a clear yield, or rental, per Saxon acre of thalers 5·75, or 17*s*. 3*d*. (say, 12*s*. 6*d*. per English acre).

The expenditure is divided into 1, *onera realia*; 2, improvements and repairs, which include planting, draining, construction of roads, and improvement of unproductive tracts; 3, working charges, including cost of felling and transport of timber, destruction of insects, daily wages, &c.;

Area planted or sown annually.

4, fixed establishments. An average area of 4,297 Saxon acres was planted yearly, during the period of five years to which these statistics refer, at an average cost per Saxon acre of about 13½ thalers, or about 30*s*. per English acre; but it must be borne in mind that this includes the cost of planting avenues, filling up hard wood plantations with conifers, as shelter for the ground, and in particular replanting in the deer park at Moritzburg, where the cost in some instances reached 26·65 thalers per acre.

Establishments.

The forests are divided into fourteen circles or divisions, containing 131 reviers or districts, being an average of nine to each division. The area of the divisions varies according to situation, accessibility, &c. from 17,500 to 47,500 English acres. The fixed establishment consists of one inspector (Oberland-forstmeister), who is also a councillor in the finance department; 15 Ober-forstmeisters, *i.e.*, 14 in charge of the several divisions, and one in charge of the control (*Einrichtung*) office; 120 ober and revier forsters in charge of the several districts (11, which are of small extent, are in charge of foresters), 16 collectors or receivers of forest revenue, 13 forest engineers, 27 foresters, and 83 subforesters. The forest academy at Tharandt has a separate staff of professors, with Herr Judeich as director.

The duties of the respective employés do not differ materially from those of the corresponding grades in Hanover,

† in other districts -

the Oberland-forstmeister and Ober-forstmeisters forming the control and supervising branch, the Oberforsters and Revierforsters, aided by the foresters and sub-foresters, the executive, whilst the forest engineers are employed in surveying, &c., and the "*Forstrent-beamte*" as paymasters or accountants. All ranks are provided with house accommodation, or granted an allowance in lieu thereof.

I spent some days at Tharandt, and visited the Tharandt revier (3,000 acres) with Professor Greifenhahn, and the Spechtshausen and Grillenburg reviers with Oberforst Rath Judeich. Great damage occurred in all these reviers by very high winds in 1866 and 1868, when whole tracts were blown down, the loftiest beech and spruce trees being uprooted and thrown down pell-mell. The establishments are still occupied in converting and transporting this timber, and, as a natural consequence, other work, such as thinning and felling, in other portions of the forest is in arrears. In fact, the whole course of operations has been interrupted, and it is impossible to carry out the plans as laid down beforehand. One most serious result of such disasters is that, the whole tract being levelled at once, little or no natural reproduction takes place, and the whole has to be replanted artificially. In other portions of these reviers they are experimenting with a system of "*vor verjüngung*," or reproduction prior to felling, in opposition to the ordinary "*nach verjüngung*." Seed is sown, and the growth of the young trees to form the next crop encouraged, before any, or when only a small portion of the old crop is cleared, and by the time the old trees are entirely removed the young crop should already cover the ground, and be several feet high. The system promises well, and does not differ much from the very gradual clearing of mature tracts in the Rippoldsau forests (*vide* page 49).

Tharandt.

I was present at a forest excursion of the students at the academy (who number 60, including three Englishmen, probationers for the Indian forest department). Oberforst rath Judeich and the other professors explained the various methods of felling, working up, estimating height and contents of trees, &c., and the same were practically illustrated on the spot, the requisite instruments having been sent out beforehand. The whole was very interesting and instructive. I specially noticed a very good and simple apparatus for marking and numbering logs, of which we stand so much in need in Madras, and Herr Judeich kindly had one made for me, which I shall take with me on my return.

I also visited, by Herr Judeich's advice, the forest reviers Wernsdorf and Luppa, in the Wernsdorf division near

Wernsdorf and Luppa Reviers.

Leipsig. The Oberforstmeister there was kind enough to accompany me round the forests in person, along with the Oberforster. The Wernsdorf revier is particularly interesting, as it has been, and is still in process of being converted from a hard wood into a pine forest. In 1820 almost the whole area was covered by a mixed hard wood forest, consisting of oak intermixed with beech, birch, alder, &c., patchy and irregular, the soil being impoverished, and requiring a change of crop. It was then decided to convert the whole gradually into a coniferous forest, and maps were drawn showing its existing condition, and what it should be after 80 years. It is marvellous how systematically and regularly the plan has been carried out. Fifty years have now elapsed, and there are coloured maps or plans made every 10 years, which show clearly the gradual change to its present state, and by 1900, unless some unforeseen and unpreventable occurrence takes place, the ideal chart, made in 1821, will represent almost exactly the age and description of timber in each portion of the revier. In accordance with the plan also, private lands, which abutted on the forest, and in some instances intersected it more or less, have been bought up from time to time and planted, so that in place of a straggling wood, irregularly covered with timber trees of inferior growth, we have now a compact close forest, regularly wooded in sections of different ages, principally with spruce and Scotch fir, but containing also fine oak, ash, and beech, with straight and clean stems.

In many cases the young oaks have been left in clearing away the beech, alder, &c., in order to plant or sow pines; and the result of the introduction of the latter has had a wonderfully beneficial effect in the growth and healthy appearance of the trees, which are now fair specimens, standing in the midst of coniferous plantations, with their crowns free, and stem and trunk protected. The young oak plantations are particularly fine; in fact, I do not think I have seen so good elsewhere. I would strongly recommend a visit to this revier to any of our officers visiting Saxony. It is most instructive, as showing the advantages of systematic and scientific forestry, based on plans well considered and matured by the estimating and controlling branch, and carefully carried out by successive executive officers. The increase in value of the revier (which has an area of 2,000 hectars) must be very great. Ober-forstmeister Brunse and Oberforster von Brandenstein spared no pains or trouble to ensure my seeing the forests and thoroughly understanding the conditions; and I am sure they will be equally obliging and

attentive to anyone who may follow in my footsteps. The forest is about five miles distant from the Luppa Dahling station on the Leipsig and Dresden railway.

Perhaps the most noteworthy feature of the Saxon State forests is the absence of all communal or private rights, or servitudes. This very desirable state of things has been arrived at by the application of the procedure, laid down by the Forest Act of 1832, prior to the passing of which the forests were burdened in all directions by servitudes, often vague and ill-defined, and forming a never ending source of dispute and bad feeling betwixt the forest officers of the Crown and the people who had, or considered they had rights in the forest. In the great majority of cases, cash payments have been the means adopted to compensate the commoners; and, although the sums awarded appeared at the time heavy, and were, I am told, very liberal, the State has gained not only in a pecuniary sense from being better able to control and consolidate the forests, but, in the general welfare, increased value in stock or capital of timber, and the cessation of disputes and ever increasing claims.

Absence of communal or private rights, a noteworthy feature.

I am aware that there are objections to such a settlement by payments to the existing representatives of a right in which they have only a life-interest; but, after all, the money, or what it procures in the shape of better houses, improved cultivation, &c. descends to future generations, for whose benefit and that of the public in general the forests are also maintained and improved in a manner which can never be equalled when they are encumbered by rights to pasturage, wood, turf, &c.

I cannot explain how the existing state of things in this important respect has been brought about, better than by submitting a short *précis* of the Act, for the translation of which I am mainly indebted to Mr. D'A. Vincent, one of our forest students at Tharandt.

The Commutation of Rights and Servitudes in Saxony.

The law which provides for the abolition of all servitudes is dated March 17, 1832. But, before going into it fully, the act or mandate of 1813, of which it forms an important part, should be studied. This mandate, dated July 30, 1813, was a forerunner to the act of 1832, and, in a certain measure cleared the way for it. The first paragraph says "that as "the real and essential object of woodlands is the production "of wood, the secondary products (*Nebennutzungen*) must "be so curtailed as not to interfere with the primary and

Précis of the Forest Act of 1832 for the commutation of rights and servitudes.

" chief product (*Hauptnutzung*)." The secondary products named are grazing, pasture, collecting of leaves, grass, and litter, juices of the trees and berries, and other fruits. The commoner is therefore bound to agree to any such arrangements as the owner may make for preventing the abuse of the rights, and any disadvantageous effect on the condition of the woodlands.

Paragraph 5 provides that the rights of the commoner shall be restricted to his own personal and domestic wants, so that no trades can be carried on in the products he draws from the woods.

By paragraph 7, no young plantation is to be opened for grazing till the plants are out of the reach of damage from the cattle, and, in those newly opened, cattle are not to be driven till the 24th of June, as before that time harm might be done to the young plants.

The succeeding paragraphs provide for the commoner's rights. " If common land is to be enclosed for a time for " planting, pasture of equal quality and quantity must be " provided for the commoner; if one or more com- " moners dispose of their rights, a proportional part of " common land can be divided off; the number of cattle to " be pastured is to be decided by the number the commoner " keeps in winter, and in cases of dispute three farmers are " to decide, one appointed by each party and one by the " government."

This mandate having in some measure restricted the demands of the commoners, the Act of 1832 was passed, by which it was decreed that after January 1, 1833, any servitudes or rights could be abolished or commuted, 1st, by mutual agreement; 2nd, at the demand of either party, lord of the manor, or commoner.

The various servitudes are classed as under:—

a. Various rights of grazing.

b. Forestal rights, viz., those of felling trees, collecting leaves, grass, and litter, and of tapping trees for turpentine.

c. The rights of cutting grass, reeds, and turf in the woods, as on other lands.

d. The rights of digging sand and loam, and of quarrying stone.

The commutation may be by payment of a lump sum of money, by an annuity, by division of land, or (in class *b.*) by a yearly quantity of wood. The lord of the manor may choose in which way the commutation shall be paid, and he may choose one or more different ways.

When this law treats of rights and servitudes to be commuted, it is only meant as far as anyone has exercised real right on the ground of another person, and does not treat of rights exercised by asking the owner's permission, or by revocable consent.

In cases when a community is lord of the manor, or has rights and servitudes to exercise, the act of commutation is to be by vote, the votes being counted and the funds raised in proportion to the voter's station and rank in the community. Any individual member of a community may, however, dispose of his rights without the concurrence of the rest of the community.

In the removal of mutual servitudes, servitudes on each side of equal services are not taken into account, the only item to be considered is the comparative magnitude of the one servitude.

On a petition being presented by either party for commutation, the first point to be ascertained is the extent of the servitudes. The cattle to be pastured are to be determined as in the mandate of 1813. If sand and loam are judged by the commissioners to be absolutely necessary for the commoner, the lord of the manor may restrict him to one part for digging the same.

In the commutation the damages which the commoner is to receive are to be assessed as follows :—If the lord of the manor petitions for commutation, the damages to be paid are what the regular exercise of the rights would bring; that is, what the commoner will lose by the falling away of the servitudes. If, however, the commoner petitions, the lord of the manor may select whether the damages are to be assessed as above, or according to the advantages which the land will gain by being freed of the servitudes.

The above is a summary of the chief paragraphs of the Act.

The method of working the Act is as follows. The matters to be decided come,

1st. Before a special commissioner.
2nd. Before a general commissioner.
3rd. Before the higher courts of law.
4th. Before the ministry.

A case for commutation comes, therefore, first before the special commission composed of two members, (1) a member of the bar qualified to act as actuary and judge, (2) a practical farmer, preference being given to those who own or farm large estates. This commission acts on the spot where the ground in question lies. The special commissions are appointed and directed by the general commissions.

The court of appeal above the special commission is that of the general commission, composed of two members of the bar and of two farmers, for the ordinary work, which consists in arranging the special commissions, &c. &c., but in cases of appeal the court is strengthened by two judges from the upper courts.

The last appeal can be made to the upper courts of law, except when complaints are made against the general commission or upper courts, when they are heard by the minister of the interior.

The parties concerned have to bear equally the expenses of the special commission (surveying the land, daily pay, and travelling expenses), and have also to provide free lodging when servitudes are to be commuted; when rights are commuted, the costs are apportioned to the parties by the commission.

In cases of appeal to the general commission, the court decides in each case whether the costs are to be borne by both parties, or by which side. In most cases the costs are borne by the State.

Another feature of the commutation in Saxony is what is called the *Landrentenbank*. This state bank issued mortgage bonds to the lords of the manor at 3½ per cent., so that they were enabled to pay the commoner at once. The bonds were to be gradually repaid, the capital of the bank being found by the State. The manor was therefore mortgaged to the extent of the bond issued. This appears to have worked very satisfactorily.

By the supplement to this Act, dated May 15, 1851, all servitudes and rights, for whose commutation no steps, up to January 1, 1854, have been taken, continue only as personal obligations on the lord of the manor and his heirs, as long as the land is not alienated. A petition for commutation must therefore be directed to the general commission before December 31, 1853, or the claims cannot be recognised.

In 1884 all personal obligations in this matter are extinguished. When the government buys private woods, it is customary to buy them only free of any servitudes, and the vendor pays off the servitudes, if any, with the purchase money (of course before 1884).

I am informed that the general commission and *Landrentenbank* were abolished soon after 1854, there being no further use for them.